

# THE ASSAM GAZETTE

# অসাধাৰণ EXTRAORDINARY প্ৰাপ্ত কৰ্তৃত্বৰ দ্বাৰা প্ৰকাশিত PUBLISHED BY THE AUTHORITY

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# GOVERNMENT OF ASSAM ORDERS BY THE GOVERNOR ENVIRONMENT AND FORESTS DEPARTMENT

#### **NOTIFICATION**

The 10th December, 2024

**eCF No.449912/199.-** The Governor of Assam is pleased to notify the following "Assam Agroforestry Policy 2024." The Policy will come into effect from the date of signing of this Notification and will remain in force for a period of 10 (ten) years.

#### 1. Introduction

Trees play a significant role in agricultural landscapes, whether they have traditionally been planted to mark boundaries between farms or fields and/or are planted with crops for perceived multiple benefits.

Agroforestry is a collective name for land-use systems in which woody perennials (trees, shrubs, palms, etc.) are deliberately used on the same land-management units as agricultural crops and/or animals in some form of spatial arrangement or temporal sequence. In agroforestry systems, ecological and economic interactions exist between the different components.

Globally, about 1.2 billion people practice agroforestry on an estimated 10% of the total agricultural cover, which accounts for over 1 billion hectares. It is particularly prevalent in South and Southeast Asia, Central America, and South America.

Highlighting the need for significant removal of carbon from Agriculture, Forestry, and Other Land Uses (AFOLU), the special report on the impacts of global warming of 1.5°C above pre-industrial levels by the Intergovernmental Panel on Climate Change (IPCC) underlined the significant role of trees outside forests. Trees in agricultural landscapes are

mentioned to be a 'no-regret strategy' with immense benefits for the climate, people, and the planet. National Action Plan for Climate Change has recognised agroforestry as an effective program for efficient nutrient cycling and enhancing organic matter in the soil for sustainable agriculture and tree cover.

India has committed to a Nationally Determined Contributions target of creating a carbon sink of an additional 2.5 to 3.0 billion tonnes of CO2 equivalent by 2030 at the UN Climate Change Conference (COP21) in Paris, France, on 12 December 2015.

In a study titled "Agriculture's Prominence in the Intended Nationally Determined Contributions (INDC): 2016 Data and Maps" conducted by the Consortium of International Agricultural Research Centers (CGIAR), 23 countries mentioned agroforestry as a mitigation priority, and 29 countries mentioned agroforestry as an adaptation priority. India considers Agroforestry as an 'adaptation priority' under the climate change strategy by reducing greenhouse gas emissions through sequestering carbon.

Agroforestry not only bridges the gap between demand and supply created by the decreasing production of industrial round wood and other tree products from forests but also facilitates achieving the national goal of maintaining one-third of the total land area under forest and tree cover as envisaged under the National Forest Policy, 1988.

Besides, agroforestry can also accelerate the achievement of India's nationally determined contribution of creating additional carbon sinks through additional forest and tree cover, and other national and international commitments and the goals of Mission LiFE (Lifestyle for Environment) making environmental protection and conservation as a participative process.

#### 2. Background Information

Assam, located in northeastern India, is known for its rich biodiversity, extensive forest cover, and significant agricultural activities. As per India State of Forest Report (ISFR) 2021, the forest cover of Assam is 36% (2.83 Mha) which exceeds the national desired cover of 33%. It is pertinent to mention here that the State government has set a target of 38% in a couple of years. However, if only the very dense and moderately dense forest areas are considered, then it is only 16.59%. Though the average forest cover of the State seems adequate at greater than 33%, 18 out of 35 districts in Assam have lower than the mandated 33% forest cover including districts with low forest cover, such as Barpeta (5.16%), Darrang (5.94%) and Dhubri (4.9%). However, 9 out of 35 districts have more than 33% forest cover, including districts with high forest cover, such as Dima Hasao (84.94%), Karbi Anglong (75.08%), and Cachar (58.84%). Therefore, it is imperative to enhance forest cover/ tree cover through the agroforestry approaches. According to the ISFR 2021, Assam has a significant area under Tree Outside Forest (TOF), contributing to its overall tree cover. The report indicates that Assam's TOF area is approximately 0.163 Mha, which includes trees in various landscapes outside traditional forests.

The State's forests are divided into tropical rainforests, deciduous forests, and grasslands. These are specifically classified as (a)Tropical Wet Evergreen Forests, found in the Tinsukia and Dibrugarh districts, (b) Tropical Semi-Evergreen Forests that are common in the central and lower Brahmaputra Valley, (c) Tropical Moist Deciduous Forests that are predominant in western Assam, and (d) Riverine Forests and Grasslands found along the Brahmaputra and Barak rivers.

The Biodiversity of Assam makes it a biological hotspot with many rare and endemic plant and animal species. Assam comprises 7 National Parks and 17 wildlife sanctuaries, 2 UNESCO World Heritage Sites, 2 Biosphere Reserves, 4 Tiger Reserves, and 5 Elephant Reserves. Assam has 3010 species of flowering plants, of which 347 have medicinal properties. The State has 102 endemic and restricted-range plants, 182 species of orchids, 42 species of bamboo, and 14 species of cane. In faunal diversity, Assam has 193 species of mammals, including 10 species of primates, more than 820 species and subspecies of birds, 185 species of fish, 405 species of butterflies, 115 species of reptiles, 46 species of amphibians, and 39 species of snails.

The State's agriculture sector serves as the bedrock of its economy, offering employment to over 70% of its populace. Spanning six agroclimatic zones, the State has rich natural resources, a favourable climate, and adequate rainfall. However, much of its cropland relies on rainfall, rendering it vulnerable to climatic disruptions. Establishing financially viable tree components within agricultural landscapes enhances resilience to climate, hunger, poverty, and market fluctuations and opens employment and income generation avenues.

Traditional agroforestry systems in Assam are home gardens (*Bari*), which are small-scale, multi-layered farming systems found near households. These systems combine trees, shrubs, crops, and sometimes livestock. Theyprovide diverse products like fruits, vegetables, medicinal plants, fuelwood, and fodder.

Assam has a very rich tradition of categorized land use such as *rupit* land / *khetipathar*, *bari* land (homestead gardens with banana, areca nut, vegetables, etc.), *kathoni* (woodland), *Bahoni* (bamboo groves), *bethoni* (cane breaks), etc. This scientific land use pattern is unique to the State of Assam. However, due to the increase in population and erosion of traditional woodlands, the traditional timber and bamboo resource base has declined. There is ample scope for extension of agroforestry in the currently cropped as well as in the fallow lands (0.106 Mha) and other fallow lands (0.092 Mha).

Shifting cultivation in Assam, known as "*jhum*," involves clearing land, planting crops for a few years, and then abandoning it for regeneration, specifically in hilly terrains. Despite its past sustainability, modern practices often lead to deforestation, soil erosion, and biodiversity loss, posing significant ecological threats to the region's delicate ecosystems. Promoting agroforestry in '*jhum* areas' through sustained income generation business models can help reverse degradation cycles.

Agroforestry systems may be tailored to suit the States' diverse ecological conditions and socio-economic needs, such as (a) Agri-Silviculture systems that integrate agricultural crops with tree species on the same piece of land, (b) Silvo-pastoral Systems that focus on combining trees with pastureland and integrating forestry with livestock rearing, (c) Agri-Horticulture systems that combine horticultural crops with forestry species, (d) Boundary Plantations involve planting trees along the boundaries of agricultural fields, and (e) Alley Cropping systems that allow rows of trees or shrubs planted at regular intervals along with agricultural crops grown in the alleys between them.

Agroforestry models suited to Assam's varied agroclimatic conditionsenhance agricultural productivity and environmental sustainability while improving the livelihoods of rural communities. Integrating trees with crops and livestock in different configurations helps optimize land use, enhance biodiversity, and promote sustainable agricultural practices.

Agroforestry can be crucial in reclaiming degraded mined areas outside notified forests by stabilizing soil, preventing erosion, and restoring fertility. It offers opportunities for economic diversification through cultivating high-value tree crops alongside traditional ones, enhancing livelihoods, and reducing reliance on mining. The Riparian plantations establish riparian buffer zones that filter pollutants, stabilize banks, and provide wildlife habitats. It can mitigate the impacts of floods by stabilizing soil, reducing erosion, and moderating water flow and infiltration into soil. Practices like floodplain agroforestry and contour planting manage floodwaters effectively, protecting agricultural lands from inundation.

Due to the declining supply of forests, the processing industries must depend on supplies from outside the State. Therefore, to revive the tree-based economy, large-scale plantations outside the notified forest area are necessary.

Due to the ban on green felling by order of the Hon'ble Supreme Court in WP(C)No. 202 of 1995 dated 12.12.1996, the wood-based economy of the State came to a halt. The people also lost motivation in tree plantation due to legal hurdles in felling and transportation of timber. Intending to promotetree cultivation on private lands, the State has now liberalized regulations related to the felling and transit of wood harvested from trees grown on private lands and notified Tree Outside Forest (Sustainable Management) Rules, 2022 to enable farmers to plant tree species and to facilitate felling of trees and movement of timber. This rule's salient point is that privately registered plantations that are beyond 5 km of notified forests, felling, and transit permits can be obtained within 48 hours of online application. The rules also liberalised the felling and transit of 55 timber species, including 14 common shade trees of tea gardens, and abolished the requirement of a transit pass for movement within Assam.

The State government also promulgated the Assam Wood Based Industries (Promotion and Development) Rules, 2022 to liberalise the functioning of the Wood-Based Industrial Units and make them environment-friendly. The salient features of these Rules are categorization of Wood Based Industries into three viz, Primary (cover Sawmills/ Plywood/ Veneer mills, etc., which use the round log as raw material), Secondary (include units such as agar-based industries etc., which do not use round logs, units that use raw materials such as bamboo, cane, reeds, and other Non-Timber Forest Produce) and Composite Wood-Based Industrial Units, exemption of the Secondary Wood-Based Industries from the condition of housing in the industrial estate and needs only registration under the proposed Rules, and Agar wood-based industries were de-licensed and categorized as Secondary Wood-Based Industries. With this liberalisation, the Agarwood Industries in the State has become a household industry.

In addition, the Amrit BrikshyaAndolan (ABA), a *Jan Andolan*, is launched by the Honourable Chief Minister of Assam on 17<sup>th</sup> September 2023 to involve citizens in commercial tree plantation. Its primary objective is to increase Tree Outside Forest (TOF) areas, to significantly boost the State's green economy and the Agroforestry Sector by promoting commercial tree plantation, fostering sustainable practices, and enhancing Assam's green cover.

The above-stated two rules are the biggest enablers for agroforestry and the growth of the tree economy in the State. However, the entire ecosystem for agroforestry, triggered by the

ABA, needs to be focused on enabling agroforestry policies, additional supportive regulations, technical capacities, incubation centers, innovation & demonstration centers, design labs, certified skill human resource, export promotion, and necessary investments from public and private sectors, bank credit incentives to farmers, startups, skilled youths to highlight a few of them to generate demand for tree products and reach its full potential. This should not only revolutionise the rural economy with green livelihood options with climate-friendly technologies and methods but also enhance the farmers' income.

# 3. Need for a dedicated agroforestry policy for the State

The Ministry of Agriculture, under the Government of India, adopted the National Agroforestry Policy (NAP) in 2014. NAP defines agroforestry as a land use system integrating trees and shrubs on farmlands and rural landscapes to enhance productivity, profitability, diversity, and ecosystem sustainability. It is a dynamic, ecologically based, natural resource management system that diversifies and sustains production and builds social institutions by integrating woody perennials on farms and in the agricultural landscape.

A dedicated State policy on Agroforestry is expected to catalyse and accelerate the adoption of agroforestry as a significant component of the agricultural ecosystem and unlock its potential to enhance agricultural and environmental resilience, improve rural livelihoods, increase on and off-farm employment, and strengthen the State's economy.

Many farmers are slowly adopting tree cultivation as an alternate and sustainable land use system, with or without agricultural crops. This must be catalyzed, incentivized, and facilitated so that there is an accelerated adoption of agroforestry practices by farmers. Creating a demand for tree products holds the key to its faster adoption. Thus, a focused agroforestry policy would go a long way in increasing the TOF acreage, which results in the proliferation of Wood-based industries, creating a local timber economy, and entrepreneurship with income enhancement.

#### 4. Vision

The vision of the Assam Agroforestry Policy is to establish agroforestry as a preferred land use system to make agriculture more climate resilient, enhance farmers' income, improve food, nutrition, and health security, create tree-product-based economic opportunities in rural areas, and maximise tree cover in the State through afforestation in fallow lands and thereby mitigate climate change effects.

#### 5. Goals

To achieve the policy vision, the primary goals are:

5.1 Setting up a dedicated institutional mechanism in the State to achieve synergy amongst various initiatives and coordination among departments and agencies of the government to promote multifunctional agricultural landscapes through agroforestry and tree-based production systems.

- 5.2 Maximise tree productivity outside forests, increasing farm incomes and green employment generation opportunities.
- 5.3 Ensure an adequate supply of certified quality planting material of preferred and suitable tree species.
- 5.4 Lay the foundations of agroforestry products and wood-based manufacturing sector in the State to meet its national needs and to promote exports, thus creating large-scale off-farm employment opportunities for rural youth and women.
- 5.5 Enhancing the green cover in the State to contribute towards helping India meet its climate change commitments/obligations.
- 5.6 Establishing a robust technical research and extension, design, and development support system in the State for end-to-end lifecycle and value addition from plant to product.
- 5.7 Promote cropping and intercropping models with fruit, medicinal and aromatic plants (trees, herbs, shrubs and climbers)
- 5.8 Promote primary processing and value addition close to production sites and creating a transparent, real-time, and easily accessible market information system.

## 6. Basic Objectives

The primary objectives of the Assam Agroforestry Policy are to:

- 6.1 Integrate tree cultivation with prevalent agricultural practices to holistically address the relevant needs of the rural populace, particularly farmers with marginal and small land holdings, and to meet the requirements of tree product-based industries.
- 6.2 Streamline availability of credit and insurance to the rural populace, particularly farmers with marginal and small land holdings.
- 6.3 Promote tree cultivation in wastelands and underutilised lands through private/public sectors that have the potential to support trees outside forest areas.
- 6.4 Foster development of a tree product and wood-based industrial ecosystem in the State driven by an adequate and assured supply of farm-grown wood and other tree products as primary raw material.
- 6.5 Reduce dependence on the import of wood and wood products in the State and the country.

- 6.6 Create a resource base outside forest areas, reduce pressure on natural forests to supply the subsistence needs of tribal and rural populations.
- 6.7 Develop technical capacity and research and development infrastructure to enhance the productivity of key agroforestry species and substitute imports of wood and wood products.
- 6.8 Simplify regulatory and enabling mechanisms, as an ongoing process, to facilitate the rural populace, particularly farmers with marginal and small land holdings.
- 6.9 Introduce a system to monetize ecosystem services and support biodiversity.
- 6.10 Establish/maintain gene bank/ candidate plus trees/ mother plant collections, Community Service Organisations (CSOs), Standard Setting Organisations (SSOs), and Sequence Similarity searching (SSs) for genetic improvement of QPM and timely access to QPM.

#### 7. Strategy

The strategy is designed to achieve the full potential of agroforestry in the State by removing the bottlenecks, creating an enabling governance, legal environment, and institutional mechanisms, and establishing a vibrant tree resource-based production system to meet domestic needs and export purposes.

#### 7.1 Strengthening of State Agroforestry Development Board

Realizing the importance and role of agroforestry in promoting sustainable development of the most vulnerable communities in the State, the Government of Assam, on 10<sup>th</sup> December 2021, notified the creation of the Assam Agroforestry Development Board. Thereafter, the Assam Agroforestry Development Board was registered as a Section 8 not-for-profit Company under the Companies Act, 2013 on 22<sup>nd</sup> June, 2022. The Board is headed by the Chief Secretary of the State. Further strengthening of the Agroforestry Development Board is required:

- To mainstream Agroforestry, encompassing all aspects of tree-based production systems, for effective coordination, convergence, and synergy between various elements of agroforestry with people's participation.
- To utilize the Special Purpose Vehicle established by the Government of Assam in undertaking focused and synchronized interventions for the agroforestry sector.

#### 7.2 Facilitating Enabling Legal Framework

♠ Assam Tree Outside Forest (Sustainable Management) Rules, 2022, facilitates tree felling and timber transportation without regulating exempted tree species. These

regulatory requirements may be supported with additional liberalisation/incentivisation to strengthen the growth of agroforestry and tree product-based enterprises as may be required in the growth trajectory of agroforestry in the State. Such reforms in regulatory mechanisms shall be done expeditiously and in a time-bound manner.

- While reforming the regulatory framework, the requirements related to sustainability and export to the overseas markets shall also be studied to facilitate and promote exports. The ambit of felling and transit exemptions for preferred agroforestry tree species will be further widened.
- The agarwood plantation, inoculation, growth of agar processing industries, skill enhancement, export promotion, and new avenues of growth create a conducive atmosphere for the cultivation and utilization of agarwood trees, followed by the trade of agar oil/derivatives by reviewing existing provisions with appropriate authorities to make optimum returns. TOF certification and sustainable management play a significant role here.
- The Basundhara platform and other associated reforms being taken up by the State may be leveraged, encouraging plantation in private lands, raising captive plantations to facilitate harvesting at maturity, and tracing the place of origin using geotagging and other digital options, including QR/Bar code.
- Tea garden owners shall be encouraged to adopt large-scale plantations on tea garden lands and set up wood-based industries to enhance the overall productivity of the land and growth in income.
- Facilitate large plantations in government lands, such as wastelands and *char* areas, with people's participation to support raw materials for wood-based industries in the State.
- Liberalise the Goods and Services Tax regime for timber produced through agroforestry, given the myriad 'free' services trees provide.

## 7.3 Establishing Quality Planting Material (QPM) Supply Chain

- The establishment of a network of nurseries to produce certified QPM along with a focused tree improvement program is imperative for the growth of the agroforestry production system. To achieve this, it is necessary to adapt/develop QPM Accreditation Standards and mainstream nursery management practices. This should prioritize the species currently the mainstay of TOF in Assam.
- Maintaining the existing seed production stands and establishing additional SSOs and CSOs for the tree species preferred by the farmers and tree growers.

- The development of seed orchards/ vegetative/clonal multiplication facilities for preferred agroforestry tree species in various agroclimatic zones in the State shall be encouraged.
- Establish regional seed banks to ensure a consistent supply of high-quality seeds and guarantee QPM. This can also help maintain genetic diversity and provide farmers with resilient planting materials suitable for agroclimatic zones and agroforestry models.
- A robust institutional mechanism of registration, accreditation, and certification of nurseries across the State shall be operationalised.
- Qualitative upgradation of existing government/ private tree nurseries to produce quality planting material based on QPM standards.
- Providing QPM at subsidised rates to reduce the initial investment burden on farmers.

#### 7.4 Development of Financial Instruments

- Financial instruments and insurance products suitable for tree growers shall be developed through active stakeholder consultation involving financial institutions, NABARD, and other organizations. Subsidy on premiums for tree crop insurance shall be kept on par with other agricultural crops.
- Development of such financial products shall take into consideration both fast-growing and long-rotation tree species, including trees for wood, medicinal value, horticulture, and other specific tree species like Agarwood, Sandalwood, Gamari, and Bamboo, which farmers in the State prefer.
- Various models, such as a consortium of growers and industry, shall be encouraged.
   The promotion of contract farming with a buy-back arrangement shall be explored.
- Incentive schemes for cultivating trees shall be revisited to cover the growing period of agroforestry tree species aiming at promoting agroforestry as a preferable land use, particularly amongst the marginal and small landholders.
- ♠ A suitable institutional mechanism shall be established in the State to enable/facilitate the tree growers to benefit from green credits under the Green Credit Programme of the Government of India and carbon credits under the carbon market.
- Develop insurance schemes to protect farmers against risks associated with agroforestry.

● Introduce a Minimum Support Price (MSP) for selected raw wood to ensure price stability and an assured return for farmers.

## 7.5 Strengthening AF Extension and Facilitation System

- Extension infrastructure shall be strengthened to promote agroforestry to not only replicate/validate research knowledge on the ground but also provide tree growers with the latest information on all aspects of agroforestry in time.
- Implement pilot projects to test and demonstrate the effectiveness of agroforestry practices.
- Define and promote agroforestry models suitable for small private landholdings and community lands (FRA areas, panchayat lands, etc).
- Establish business incubator centers for training on value addition, handholding, and developing novel wood-based industries.
- Development of specialized Agroforestry Apps and Geoinformatics-based monitoring and extension tools and services.
- An enabling system would be put in place at the Village/ Panchayat/ District level with people's committees for community participation to ensure the availability of trained manpower to disseminate knowledge about suitable agroforestry models based on agro-climatic and edaphic conditions, availability of QPM, silvicultural practices at different stages of tree growth, appropriate harvesting and logging, and post-harvest practices for maximizing output to meet industry demand.
- Build the capacity of relevant institutions/departments and field-level officials to understand the agroforestry practices, including knowledge of the markets.
- Establishing an outreach programme to share the results of works done by Research and Extension Wings of the Assam Forest Department, especially in the field of post-harvest technology of secondary (lesser known) timber species, bamboo, Agarwood, etc., will be put in place for the benefit of farmers, industrialists, and other stakeholders.
- Extensive awareness shall be spread amongst farmers and tree growers about the rules and regulations regarding harvesting and transportation of species, as notified by the Government of Assam.
- Special-purpose fiscal instruments (like developmental cess on raw wood exported out of the State) shall be deployed to generate funds for extension services, adhering to the user pays principle.

• An IT-enabled, inclusive, and transparent agroforestry tree product/ wood trading platform shall be established to bring buyers/industry and sellers/tree growers on a single platform to develop a direct link between the industry and the tree growers. The platform shall also provide farmers with market information and price trends of various agroforestry crops and value-added products

# 7.6 Development of industries based on agroforestry tree products

- For the growth of existing industries and the establishment of new tree product-based industries, short-term and long-term projections of the availability of required raw materials in the vicinity of industries/industrial clusters are prerequisites. A periodic quick assessment of resources in existing TOF zones should be institutionalized.
- It is necessary to establish a database to predict demand trends, harvest, planting, and market prices of industrial round wood, the most essential tree product of the agroforestry system.
- The State should incentivize the setting up of tree-produce-based industries in the identified regions with the potential for agroforestry growth.
- Industries shall be encouraged to take up wastelands that are under private/public sectors and have the potential to support trees for the production of industrial round wood. For these, appropriate mechanisms shall be drawn up to attract private-sector investment.
- Impetus shall be given to promote export-specific products such as Agar Oil, agar chips, kutch, and katha.
- Encourage agroforestry of host plants of *Muga*, *Endi*, and *Tussar* silks, which are part of the Assamese tradition and culture.
- TOF wood certification is necessary for the international acceptability of products manufactured from agroforestry/TOF wood. Export items from India have rural origins with little or no quality control. Various certification schemes available for this purpose must be examined to determine which is most suitable for the State of Assam in its specific context.

#### 7.7 Prioritised Research and Education

• Institutional mechanisms such as the Research wing of Assam Forest Department shall be improved to prioritize research objectively and to coordinate with relevant institutions to share their knowledge and experiences and to work collaboratively to quickly pass the benefits of broader global knowledge to end users in solving actual problems faced by tree growers.

- A web portal shall be set up as a one-stop source of all published research findings in agroforestry relevant to Assam, specially collated for access and use by all stakeholders.
- Research should be directed towards analyzing and improving both the impacts of this policy and the policy itself so that agroforestry continues contributing to future productivity and resilience in Assam.
- Conduct assessments to evaluate the environmental impacts of agroforestry projects and suggest mitigation and adaptation measures.
- Define clear performance indicators to monitor the progress and impact of agroforestry practices.

## 7.8 Establishment of an Agroforestry Science and Policy Council

- Constitute a Science and Policy Council, under the chairmanship of Chief Secretary, comprising nominated experts from organisations at the forefront in the agroforestry domain, namely Indian Council of Forestry Research and Education, CIFOR-ICRAF and ICAR-Central Agroforestry Research Institute (CAFRI), to advise the decision makers on potential innovations and strategies for resolution of various challenges on a going basis.
- The council shall also be responsible for intersectoral coordination between various departments, alignment of agroforestry policy with national and State policies and rules of related departments (like TOF rules and WBI rules of Assam Forest department), and collaboration with international organisations on initiatives to promote agroforestry.
- **7.9** The department shall formulate the requisite Rules, Regulations, and Guidelines for the smooth implementation of the Policy, including amendments to the existing regulatory and legal frameworks.

#### 8. Way Forward

The following are the prioritized activities to achieve the policy objectives:

- Decide the institutional and financial arrangements and responsible actors for the long-term growth of the agroforestry sector in the State.
- Implement pilot projects to test and demonstrate the effectiveness of agroforestry practices and thus define and promote various agroforestry models suitable for small private landholdings and community lands (FRA areas, panchayat lands, etc.)
- Encourage a standard for certification of nurseries for the production of QPM of agroforestry tree species, establish and operationalise mechanisms for registration, accreditation, and the star rating of nurseries across the State, and channel financial

support for the establishment of new nurseries to meet the projected demand for QPM.

- Identification of catchment areas of existing tree product-based industries and industrial clusters and species-wise forecast of demand and supply and to evolve extension program aiming to bridgethe gap. The captive plantations by the Woodbased Industries, as per the Assam Wood Based Industries (Promotion & Development) Rules, 2022, should be focussed on increasing the supply of raw materials.
- Establishment of "specific Agroforestry zones" with a particular focus on native species like Agarwood (*Aquilaria malaccensis*, profusely grown in Jorhat, Golaghat, and Sivasagardistricts), Bamboo, and Kadamb (*Anthocephalus cadamba*) for agroforestry development as they have suitable growing feed to the country's demand, adding to the economic and livelihood development of the State.
- Develop the extension arm of the Forest Department for promoting Agroforestry through the community participation through committees at the level of Village/ Panchayat/ District level.
- Preparation of detailed IEC (infographics and pictorial illustrations) on successful/proven agroforestry models suitable for the different agro-climatic zones in the State.
- Study the available incentive schemes and financial products for tree cultivation and evolve a comprehensive scheme and financial/insurance product to cover the entire growing period of tree species to promote agroforestry as a preferable land use, particularly among marginal and small landholders.
- Identify and prioritise R&D needs for the growth of the agroforestry sector to evolve a result-oriented action plan in consultation with and through active participation/support of the industries and the central and State organizations.
- Study the opportunities for substituting the import of wood and wood products and promoting exports and evolve a workable action plan based on the study outcomes.
- Establish an Agroforestry Science and Policy Council, whichshall become the seat for further development and innovation under the policy. This shall ensure periodic review and suggest potential innovations and strategies for efficient policy implementation and agile growth of agroforestry in the State.

#### 9. Tenure and Review of Policy:

The policy's tenure is Ten (10) Years, and it would be reviewed every three (3) years to ensure that the changes are made to address the identified gaps and align with legal/regulatory requirements.

# 10. Funding:

The funding for implementing the policy initiatives would be mobilised through Corporate Social Responsibility (CSR), Externally Aided Programmes, Central Sector Schemes, and other schemes of the Central/ State Government.

#### **Abbreviations:**

ABA	Amrit BrikshyaAndolan
AFOLU	Agriculture, Forestry, and Other Land Uses
CAFRI	Central Agroforestry Research Institute
CGIAR	Consortium of International Agricultural Research Centers
CIFOR	Center for International Forestry Research
CSO	Community Service Organisation
CSR	Corporate Social Responsibility
FRA	Forest Rights Act
ICAR	Indian Council of Agricultural Research
ICRAF	International Centre for Research in Agroforestry
IEC	Information, Education & Communication
INDC	Intended Nationally Determined Contributions
IPCC	Intergovernmental Panel on Climate Change
ISFR	India State of Forest Report
LiFE	Lifestyle for Environment
MSP	Minimum Support Price
NABARD	National Bank for Agriculture And Rural Development
NAP	National Agroforestry Policy
QPM	Quality Planting Material
R&D	Research and Development
SSO	Standard Setting Organisation
SSS	Sequence Similarity Searching
TOF	Tree Outside Forest
UNESCO	United Nations Educational, Scientific and Cultural Organization

# KAVITHA PADMANABHAN,

Commissioner & Secretary to the Government of Assam, Environment and Forest Department.